CLAIMS: I claim:

1. A no-spill, automatic-shutoff, vapor-recovery spout, comprising:
    a. a means for connecting and sealing thereto, the receiving end of said spout to the outlet of a container for volatile liquids, such as fuel, a liquid conduit to deliver said volatile liquid, to the discharge end of said spout, and a vapor/air conduit to conduct said vapor and air, in the opposite direction, into the container,
    b. a tank seal on said spout for sealing the opening of a receiving tank and its contents from exposure to the atmosphere,
    c. a normally-closed shutoff valve, which can be opened when said spout and tank seal are inserted into said tank opening, said shutoff valve then allowing said liquid to flow from said container into said sealed tank and said vapor and air, being displaced by said liquid, to flow, in the opposite direction, from said tank into said container,
    d. an entrance to said vapor/air conduit positioned to ensure that said liquid in said tank will block said conduit entrance, when said tank has been filled to a predetermined level, thus trapping said vapor and air remaining in said tank between said liquid level, said tank seal, and the walls of said tank,
    e. communication through said liquid conduit to allow compression of said trapped vapor and air in said tank by the head of liquid remaining in said container, such that a balance is established and maintained, consisting of the sum of the head of said liquid remaining in said container relative to the liquid level in said tank plus the vapor and air pressure above said liquid in said container on one hand, and the pressure of said trapped and compressed vapor and air remaining in said tank on the other hand, thus automatically stopping the flow of said liquid from said container,
    f. means whereby said tank seal continues to seal said tank opening until said shutoff valve closes prior to, or simultaneously, with the removal of said spout and tank seal.
2. The spout of claim 1 wherein a low flow-resistance check valve is incorporated into said vapor/air conduit to prevent flooding of said conduit with said liquid from said container when said shutoff valve is opened to allow said liquid to flow from said container.

2. The spout of claim 1 wherein a low flow-resistance check valve is incorporated into said vapor/air conduit to prevent flooding of said conduit with said liquid from said container when said shutoff valve is opened to allow said liquid to flow from said container.
3. The spout of claim 1 wherein said tank seal is a collar extending in a radial direction from the outer surface of a spring-biased sliding sleeve, said collar being an integral portion of said sliding sleeve, or mounted and sealed onto said sliding sleeve, and having a smooth, uninterrupted surface capable of sealing a range of said tank opening diameters.
4. The spout of claim 3 wherein said tank seal is cone-shaped with the small end of said cone facing said tank opening.
5. The spout of claim 1 wherein said tank seal is provided with a resilient sealing surface such as rubber or a similar polymer.
6. The spout of claim 4 wherein said cone-shaped seal is provided with a resilient sealing surface such as rubber or a similar polymer.
7. The spout of claim 3 wherein the force provided by said biasing spring on said sliding sleeve is normally applied to said shutoff valve seat keeping said valve closed, and is then transferred to said tank seal by the movement of said sliding sleeve relative to said shutoff valve as said spout and tank seal are inserted and pushed into said tank opening, causing said shutoff valve to be opened and said tank seal to be made tighter, and is transferred back again to said shutoff valve seat closing said valve while said spout and tank seal are being removed from said tank opening.
8. The spout of claim 1 wherein said tank seal force is applied manually and said shutoff valve I opened and closed manually.
9. The spout of claim 3 wherein the sliding surfaces of said sliding sleeve are protected from contamination by a suitable shield.